Section II (Remarks)

Acknowledgment of Withdrawal of Restriction Requirement

The withdrawal of the restriction of claims 25-30 in the March 2, 2005 Office Action, at page 2 thereof, is acknowledged.

The pending claims the application are claims 1-20 and 25-30, as set forth in Section I hereof.

Rejection of Claims, 1-20 and 25-30, and Request for Withdrawal of Such Rejections in View of 37 CFR §1.131 Declarations Submitted Herewith

In the March 2, 2005 Office Action, the Examiner has rejected pending claims 1-20 and 25-30 on various reference grounds, including:

- a rejection of independent claims 1, 18 and 25, and claims 2-9, 19-20 and 26-29, respectively dependent thereunder, as unpatentable under 35 U.S.C. §102(e) over the disclosure of U.S. Patent 5,535,230 (**Abe**);
- a rejection of claims 10-13, dependent under claim 1, and claim 30, dependent under claim 25, as unpatentable under 35 U.S.C. §103(a) over the disclosure of Abe in view of the disclosure of U.S. Patent 5,777,350 (**Nakamura et al.**); and
- a rejection of claims 14-17, dependent under claim 1, as unpatentable under 35 U.S.C. §103(a) over the disclosure of Abe in view of the disclosure of U.S. Patent by 5,677,417 (**Muellen et al.**) and the disclosure at page 18 of the Application of certain commercially available fluorescent materials.

Such rejections are traversed, and request hereby is made for withdrawal of such rejections, on the basis that each of the cited Abe, Nakamura et al. and Muellen et al. references is disqualified and removed as applicable prior art by the 37 CFR §1.131 declarations of the inventors Bruce H.

Baretz and Michael A. Tischler enclosed and submitted herewith, in Appendices A and B hereof, respectively.

The Baretz and Tischler Declarations

The Baretz and Tischler declarations submitted herewith under 37 CFR §1.131 are correspondent to one another, with respect to the facts attested to therein.

As set out in each of the declarations, the co-inventors Bruce H. Baretz, and Michael A. Tischler attest to the fact that they are co-inventors of the subject matter disclosed and claimed in the present U.S. patent application, filed on March 26, 1996 in their names as a continuation of U.S. patent application no. 08621,937, on which U.S. Patent No. 6,600,175 issued on July 29, 2003.

The co-inventors in their declarations attest to the subject matter disclosed and claimed in the application ("Invention") as including independent claims 1, 18 and 25, and attest that they are aware of the March 2, 2005 Office Action and rejections of claims therein over the Abe, Nakamura et al. and Muellen et al. references. They further attest to the fact of having been informed by their legal representatives that these rejections can be overcome by presenting evidence to the USPTO of the co-inventors' possession of the claimed Invention prior to the earliest effective dates of the Abe, Nakamura et al. and Muellen et al. references, and such dates are set out in the declarations for each of the references, as January 3, 1995 for Abe, November 30, 1995 for Nakamura et al. and August 29, 1995 for Muellen et al., with Muellen et al. being acknowledged to be based on an international application having a publication date of November 10, 1994, referred to in the declarations as the "Muellen et al. Publication Effective Date."

The co-inventors specifically attest to the following facts in the respective declarations:

- that attached as Exhibit 1 in the declarations is a true and exact copy, as redacted, of a "MEMO" identifying Bruce H. Baretz as the author ("From: Bruce H. Baretz") and the recipient as Duncan Brown of Advanced Technology Materials Inc. ("To: Duncan Brown" immediately below which is set out "Company: Advanced Technology Materials Inc."); that such "MEMO" was sent to Advanced Technology Materials Inc. by Bruce H. Baretz in his role as a consultant for that company, in which role Dr. Tischler interacted with him, and that at that time Dr. Tischler was employed as a scientist by ATMI; that Duncan

Brown was at that time a Vice President of Advanced Technology Materials Inc., to whom Dr. Tischler reported; that the "MEMO" has a date that has been blacked out ("Date: [redacted] [date blacked out]"), but which date is prior to the Abe Effective Date, the Nakamura et al. Effective Date, the Muellen et al. Effective Date and the Muellen et al. Publication Effective Date; that the "MEMO" is titled "REFERENCE: White Light Light Emitting Diodes (LED)" and contains the following text:

> "REFERENCE: White Light Light Emitting Diodes (LED)
>
> Duncan -
>
> Enclosed are some samples of the Lumogen dyes already cast into PMMA sheets. These dyes may be useful, when incorporated into polycarbonate LED lenses, to attenuate and shift the light emission from UV or blue (assumming [sic] a GaN die) to either a green, yellow, or red emission, or some combination of these emissions. An appropriate combination would, in theory, generate white light.
>
> "I will see if I can get some information on purchasing these Lumogen dyes already mixed into polycarbonate."

wherein such quoted text contains the acronym "LED" denoting light emitting diode, the acronym "PMMA" denoting polymethylmethacrylate, the acronym "UV" denoting ultraviolet, and the chemical symbol "GaN" denoting gallium nitride, in describing the Invention as embodied in a white light LED ("White Light Light Emitting Diode"), a light emitting device including a "UV or Blue ... GaN die," a solid state emitter of radiation of a first, relatively shorter wavelength and "Lumogen dyes," a down-converting luminophoric medium, discussed as being "useful ... to attenuate and shift the light emission from the UV or Blue (assumming [sic] a GaN die) to either a green, yellow, or red emission, or some combination of these emissions," with "[a]n appropriate combination" being proposed to "generate white light."

- that attached as Exhibit 2 of the declarations is a true and exact copy of a "FAX NOTE" annotated with the handwritten date "1/9/95;" that such "FAX NOTE" was sent by Bruce H. Baretz to Duncan Brown of Advanced Technology Materials Inc. and is annotated with the handwritten note, "Copy to MAT – JRE –" identifying the initials "MAT" of Michael A. Tischler and the initials "JRE" of Janet R. Elliott; that Janet R. Elliott was the person

responsible for coordinating patent activities at Advanced Technology Materials Inc.; that such "FAX NOTE" contains the following text:

> "Duncan - here are some words for you to pass through to your patent attorney. It is my hope that these ideas form the basis for a patent.
>
> Please let me know how I can help get this patent written and assigned to ATMI.
>
> Bruce,"

wherein such quoted text contains the acronym "ATMI" denoting Advanced Technology Materials Inc.; that such "FAX NOTE" as sent to Advanced Technology Materials Inc. included a 13 page document prepared by Bruce H. Baretz, a true and exact copy of which is contained in Exhibit 2, containing on the first page thereof the text:

> "White Light Emitting Diodes Based on Fluorescent Impregnation
> Invention Report
> Prepared by: Bruce Baretz, Keen Solutions, Inc. on Jan 7, 1995,"

that above such text is the handwritten annotation "ATMI Record of Invention #95-2 ATMI File No. 198" evidencing acceptance by Advanced Technology Materials Inc. of such Invention Report and entry thereof into its invention records; that Keen Solutions, Inc. was the business entity under which the consulting services of Bruce H. Baretz were rendered to Advanced Technology Materials Inc.; that such Invention Report and accompanying the FAX NOTE constitute a total of 14 pages; that the Invention Report contains the following text:

> "The invention relates to the utilization of a single source (typically monochromatic) light emitting diode die that activates (photoexcites) the ground state of suitable fluorophors encapsulated in a polymeric matrix (or otherwise placed in a non-active region of the light emitting diode assembly), whereby these fluorophors, after photoexcitation, re-emit their absorbed energy at a wavelength and wavelengths bathochromic to the initial wavelength of the emission coming from the active layer of the light emitting diode" [page 2 of 14];

> "In this invention, the white light emission can be obtained using a single light emitting diode die and a composition of a single or mixture of suitable fluorophors that emit a broad range of wavelengths, thereby offering a white light." [Page 2 of 14];
>
> "Invention
> a. Development of the white light emitting diode using a blue or UV light emitting diode die, and a fluorescer or combination of fluorophors encapsulated within the plastic encapsulating dome above the active layer of said die. The fluorophors are chosen in such a manner that they absorb the monochromatic light emission from the UV or blue light emitting die and spontaneously emit the absorbed light as fluorescent or phosphorus light emissions over a broader spectrum and bathochromic to the original wavelength of emission. With the spontaneous re-emission of light over a broad range of wavelengths, the appearance of said light can be adjusted to appear white of any shade or hue." [Page 10 of 14];
>
> "g. Development of a light emitting diode where an electrical pulse is delivered (to minimize power drain from the battery source) but where a continuous period of illumination is realized by adjustment of the luminescence lifetimes of suitable phosphors." [Page 11 of 14];

in describing the Invention.

- that the Invention Report of Exhibit 2 after its submission to Advanced Technology Materials Inc. was processed as an invention record by such company and communicated to patent counsel who prepared a patent application that was reviewed by Michael A. Tischler and Bruce H. Baretz and filed in the U.S. Patent and Trademark Office on March 26, 1996 as U.S. Patent Application No. 08/621,937.

- that Michael A. Tischler and Bruce H. Baretz executed a Declaration and Power of Attorney filed in U.S. Patent Application No. 08/621,937 declaring themselves to be original, first and joint inventors of the subject matter claimed and for which a patent was sought in such U.S. Patent Application No. 08/621,937.

- that Michael A. Tischler and Bruce H. Baretz executed an assignment of said U.S. Patent Application No. 08/621,937 in favor of Advanced Technology Materials Inc., which assignment was recorded in the U.S. Patent and Trademark Office.

- that Exhibit 1 is offered with the declarations as evidence of the conception by Michael A. Tischler and Bruce H. Baretz of the Invention disclosed and claimed in the present application prior to the Abe Effective Date, the Nakamura et al. Effective Date, the Muellen et al. Effective Date and the Muellen et al. Publication Effective Date, and that Exhibit 2 is offered with the declarations as evidence of continuing diligence by Michael A. Tischler and Bruce H. Baretz concluding in the constructive reduction to practice of the Invention by the filing of the present U.S. Patent Application No. 08/621,937 on March 26, 1996.

Based on such 37 CFR §1.131 declarations of the co-inventors evidencing possession of the instant claimed invention prior to the effective dates of the Abe, Nakamura et al. and Muellen et al. references as well as prior to the publication date of the international patent application on which the Muellen et al. reference was based, the cited Abe, Nakamura et al. and Muellen et al. references are disqualified and removed as applicable prior art against the pending claims of the present application.

By such disqualification of the Abe, Nakamura et al. and Muellen et al. references, the only remaining basis of rejection is the examiner's citation of the applicants' own disclosure at page 18 of the present application, that specific fluorescent materials are commercially available. Such existence and commercial availability of specific fluorescent materials by itself, however, provides no derivative basis or suggestion of the light emitting device and assembly of the instant claimed invention.

It therefore is apparent that the pending claims 1-20 and 25-30 delineate patentable subject matter, and merit allowance. The examiner correspondingly is requested to withdraw the rejections imposed in the March 2, 2005 Office Action, and to issue a notice of allowance for such pending claims 1-20 and 25-30.

Request for Extension of Time under 37 CFR 1.136

Request hereby is made under the provisions of 37 CFR 1.136 for a one month extension of the term for response set in the March 2, 2005 Office Action, extending the deadline for a reply to the Office Action from June 2, 2005 to July 2, 2005. The fee specified in 37 CFR 1.17(a)(1) in the

amount of $120 for such one month extension is enclosed, in the form of a credit card authorization document specifying such amount.

Authorization also is hereby given to charge any additional fee or amount properly payable for the entry of this response, to Deposit Account No. 08-3284 of Intellectual Property/Technology Law.

CONCLUSION

Claims 1-20 and 25-30 are patently distinguished over the art and are in form and condition for allowance.

Favorable action therefore is requested.

If any issues remain outstanding, incident to the formal allowance of this application, the examiner is requested to contact the undersigned attorney at (919) 419-9350 to discuss their resolution, in order that this application may be passed to issue at an early date.

Respectfully submitted,

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